

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1.-64. (Cancelled)

65. (Previously presented) A composite acellular product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane prepared by a compression of a collagen sponge at a pressure of at least about 50 bar.

66. (Previously presented) The product of claim 65, wherein the collagen of at least one of the porous layer and of the collagen membrane is selected from the group consisting of collagen and a mixture of collagen with at least one polysaccharide selected from the group consisting of a cellulose, a dextran, an alginate, a carrageenan, a glycosaminoglycan, and a chitosan.

67. (Previously presented) A composite product comprising the composite acellular product of claim 65, wherein at least one of the porous layer and of the collagen membrane, comprises living cells selected from the group consisting of normal living cells, genetically modified living cells and malignant living cells.

68. (Previously presented) The product of claim 67, wherein said living cells originate from young subjects.

69. (Previously presented) The product of claim 67, wherein said living cells originate from elderly subjects.

70. (Previously presented) The product of claim 67, wherein said living cells are selected from the group consisting of fibroblasts, keratinocytes, melanocytes, Langerhans' cells originating from the blood, endothelial cells originating from the blood, blood cells, sebocytes,

chondrocytes, osteocytes, osteoblasts, and Merkel's cells, said cells being normal, genetically modified or malignant.

71. (Previously presented) A composite skin product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane prepared by a compression of a collagen sponge at a pressure of at least about 50 bar, said porous collagen layer comprising living fibroblasts and said collagen membrane comprising on the surface thereof living cells selected from the group consisting of: keratinocytes, melanocytes, Merkel's cells, Langerhans' cells originating from the blood, sebocytes, blood cells.

72. (Previously presented) The product of claim 71, wherein the collagen sponge is compressed at a pressure of at least about 50 bar, and at a temperature ranging between about 20°C and 80°C.

73. (Previously presented) The product of claim 71, wherein the collagen sponge is compressed at a pressure between about 50 bar and 200 bar and at a temperature between about 40°C and 60°C.

74. (Previously presented) The product of claim 70, wherein the collagen membrane is prepared prior to combination with the porous layer.

75. (Previously presented) The product of claim 70, further comprising a collagen gel on at least one surface of the membrane.

76. (Previously presented) A composite acellular product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane prepared by a compression of a collagen sponge at a pressure of at least about 50 bar, and wherein at least one of the porous layer and membrane is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen.

77. (Previously presented) The product of claim 76, wherein said insoluble collagen comprises collagen fibers.

78. (Previously presented) The product of claim 65, wherein at least one of said porous collagen layer and said collagen membrane is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen, wherein the collagen is selected from the group consisting of type I collagen and type III collagen.

79. (Previously presented) An artificial skin comprising a product as defined in claim 65, 67, 71, or 76.

80. (Previously presented) The artificial skin of claim 79, comprising living cells obtained from young subjects.

81. (Previously presented) The artificial skin of claim 79, wherein said artificial skin comprises living cells obtained from elderly subjects.

82. (Previously presented) The artificial skin of claim 79, comprising living cells selected from the group consisting of fibroblasts, keratinocytes, melanocytes, Langerhans' cells originating from the blood, endothelial cells originating from the blood, blood cells, sebocytes, chondrocytes, osteocytes, osteoblasts and Merkel's cells, said cells being normal, genetically modified or malignant.

83. (Previously presented) The artificial skin of claim 82, wherein said blood cells are selected from the group consisting of macrophages and lymphocytes.

84. (Previously presented) The artificial skin of claim 80, wherein at least one of said porous collagen layer and said collagen membrane comprises a compound which favors cell development.

85. (Previously presented) The artificial skin of claim 84, wherein said compound which favors cell development is selected from the group consisting of a growth factor, cytokine and a chemokine.

86. (Previously presented) The artificial skin of claim 79, wherein the collagen is selected from the group consisting of collagen and a mixture of collagen with at least one polysaccharide selected from the group consisting of a cellulose, a dextran, an alginate, a carrageenan, a glycosaminoglycan, and a chitosan.

87. (Previously presented) The artificial skin of claim 79, wherein at least one of said porous collagen layer and said collagen membrane is crosslinked.

88. (Previously presented) The artificial skin of claim 87, wherein crosslinking is a thermal dehydration under vacuum.

89. (Previously presented) The artificial skin of claim 87, wherein crosslinking is a chemical crosslinking selected from the group consisting of a crosslinking with diphenyl phosphorylaxide, crosslinking with an aldehyde, crosslinking with glutaraldehyde, a crosslinking with a carbodiimide, a crosslinking with a succinimide and combinations thereof.

90. (Previously presented) A method of reconstructing damaged areas of skin in vivo comprising performing said reconstruction with an artificial skin prepared from a product selected from the group consisting of a composite product as defined in claim 67, 71, or 76.

91. (Previously presented) The method of claim 90, wherein at least one of the porous layer and of the collagen membrane is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen, the collagen being selected from the group consisting of type I collagen and type III collagen.

92. (Previously presented) The method of claim 90, wherein said artificial skin comprises living cells obtained from young subjects.

93. (Previously presented) The method of claim 90, wherein said artificial skin comprises living cells obtained from elderly subjects.

94. (Previously presented) The method of claim 90, comprising adding to at least one of the porous layer and of the collagen membrane living cells selected from the group consisting of fibroblasts, keratinocytes, melanocytes, Langerhans' cells originating from the blood, endothelial cells originating from the blood, blood cells, sebocytes, chondrocytes, osteocytes, osteoblasts, and Merkel's cells, said cells being normal, genetically modified or malignant.

95. (Previously presented) The method of claim 94, wherein said blood cells are selected from the group consisting of macrophages and lymphocytes.

96. (Previously presented) A method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin prepared from a composite product as defined in claim 67, 71, or 76, wherein said artificial skin comprises living cells obtained from young subjects.

97. (Currently amended) A method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin prepared from a composite product as defined in claim 67, 71, or 76, wherein said artificial skin comprises living cells obtained from elderly young subjects.

98. (Previously presented) A composite acellular product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane comprising a collagen film prepared by drying a collagen gel separately from the porous collagen layer.

99. (Previously presented) The product of claim 98, wherein the collagen of at least one of the porous layer and of the collagen membrane is selected from the group consisting of collagen and a mixture of collagen with at least one polysaccharide selected from the group consisting of a cellulose, a dextran, an alginate, a carrageenan, a glycosaminoglycan, and a chitosan.

100. (Previously presented) A composite product comprising the composite acellular product of claim 98, wherein at least one of the porous layer and of the collagen membrane, comprises living cells selected from the group consisting of normal living cells, genetically modified living cells and malignant living cells.

101. (Previously presented) The product of claim 100, wherein said living cells originate from young subjects.

102. (Previously presented) The product of claim 100, wherein said living cells originate from elderly subjects.

103. (Previously presented) The product of claim 100, wherein the living cells are selected from the group consisting of fibroblasts, keratinocytes, melanocytes, Langerhans' cells originating from the blood, endothelial cells originating from the blood, blood cells, sebocytes, chondrocytes, osteocytes, osteoblasts, and Merkel's cells, said cells being normal, genetically modified or malignant.

104. (Currently amended) An artificial skin product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane prepared by drying a collagen gel separately from the porous collagen layer, said porous collagen layer comprising living fibroblasts and said collagen ~~compact~~ membrane comprising on the surface thereof living cells selected from the group consisting of: keratinocytes, melanocytes, Merkel's cells, Langerhans' cells originating from the blood, and sebocytes.

105. (Previously presented) The product of claim 104, wherein the collagen membrane is prepared by drying the collagen gel in air.

106. (Previously presented) The product of claim 105, further comprising a collagen gel on at least one surface of the collagen membrane.

107. (Previously presented) A composite acellular product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane prepared by drying a collagen gel separately from the porous collagen layer, and wherein at least one of the porous layer and of the collagen membrane is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen.

108. (Previously presented) The product of claim 107, wherein said insoluble collagen comprises collagen fibers.

109. (Previously presented) The product of claim 98, wherein at least one of the porous layer and of the collagen membrane is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen, wherein the collagen is selected from the group consisting of type I collagen and type III collagen.

110. (Previously presented) An artificial skin comprising a product selected from a product as defined in claim 98, 100, 104, or 107.

111. (Previously presented) The artificial skin of claim 110, comprising living cells obtained from young subjects.

112. (Previously presented) The artificial skin of claim 110, comprising living cells obtained from elderly patients.

113. (Previously presented) The artificial skin of claim 110, comprising living cells selected from the group consisting of fibroblasts, keratinocytes, melanocytes, Langerhans' cells originating from the blood, endothelial cells originating from the blood, blood cells, sebocytes, chondrocytes, osteocytes, osteoblasts, and Merkel's cells, said cells being normal, genetically modified or malignant.

114. (Previously presented) The artificial skin of claim 113, wherein said blood cells are selected from the group consisting of macrophages and lymphocytes.

115. (Previously presented) The artificial skin of claim 110, wherein at least one of the porous layer and of the collagen membrane comprises a compound which favors cell development.

116. (Previously presented) The artificial skin of claim 115, wherein said compound which favors cell development is selected from the group consisting of a growth factor, cytokine and a chemokine.

117. (Previously presented) The artificial skin of claim 110, wherein the collagen is selected from the group consisting of a collagen and a mixture of collagen with at least one polysaccharide selected from the group consisting of cellulose, dextran, alginate, carrageenan, sulfated glycosaminoglycans, and chitosan.

118. (Previously presented) The artificial skin of claim 110, wherein at least one of the porous layer and of the collagen membrane is crosslinked.

119. (Previously presented) The artificial skin of claim 118, wherein crosslinking is a thermal dehydration under vacuum.

120. (Previously presented) The artificial skin of claim 118, wherein crosslinking is a chemical crosslinking selected from the group consisting of a crosslinking with diphenyl phosphorylazide, crosslinking with an aldehyde, crosslinking with glutaraldehyde, a crosslinking with a carbodiimide, a crosslinking with a succinimide and combinations thereof.

121. (Previously presented) An artificial skin product forming a collagen support comprising at least one porous collagen layer covered on at least one side with a collagen membrane comprising a collagen film prepared by drying a collagen gel in air separately from the porous collagen layer, said porous collagen layer comprising living fibroblasts cells and said collagen membrane comprising on the surface thereof living cells other than fibroblasts.

122. (Previously presented) The product of claim 121, wherein said living cells on the surface of the membrane are selected from the group consisting of keratinocytes,

melanocytes, Merkel's cells, Langerhans' cells originating from the blood, sebocytes, and blood cells.

123. (Previously presented) The product of claim 121, wherein said living cells on the surface of the membrane comprise keratinocytes .

124. (Previously presented) A method of reconstructing damaged areas of skin in vivo comprising performing said reconstruction with an artificial skin prepared from a product selected from the group consisting of a composite product as defined in claim 100, 104, 107, or 121.

125. (Previously presented) The method of claim 124, wherein at least one of the porous layer and of the collagen membrane is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen, the collagen being selected from the group consisting of type I collagen and type III collagen.

126. ((Previously presented) The method of claim 124, wherein said artificial skin comprises living cells obtained from young subjects.

127. (Previously presented) The method of claim 124, wherein said artificial skin comprises living cells obtained from elderly subjects.

128. (Currently amended) A method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin prepared from a composite product as defined in claim 100, 104, 107 or 121, wherein said artificial skin comprises living cells obtained from young subjects.

129. (Previously presented) A method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin prepared from a composite product as defined in claim 100, 104, 107, or 121, wherein said artificial skin comprises living cells obtained from elderly subjects.

130. (Previously presented) The product of claim 71, wherein said product is a reconstructed dermis, comprising the fibroblasts that colonized the porous collagen layer forming a three dimensional matrix, said dermis being covered with a multilayer epidermis comprising said collagen membrane.

131. (Previously presented) The product of claim 104, wherein said product is a reconstructed skin composed of a reconstructed dermis, comprising the fibroblasts that colonized the porous collagen layer forming a three dimensional matrix, said dermis being covered with a multilayer epidermis comprising said collagen membrane.

132. (Previously presented) The product of claim 121, wherein said product is a reconstructed skin composed of a reconstructed dermis, comprising the fibroblasts that colonized the porous collagen layer forming a three dimensional matrix, said dermis being covered with a multilayer epidermis comprising said collagen membrane.

133. (Previously presented) A method of reconstructing damaged areas of skin in vivo comprising performing said reconstruction with an artificial skin prepared from a product selected from the group consisting of a composite product as defined in claim 79.

134. (Previously presented) The method of claim 133, wherein at least one of the two layers is produced from a collagen gel containing a mixture of soluble collagen and insoluble collagen, the collagen being selected from the group consisting of type I collagen and Type III collagen.

135. (Previously presented) The method of claim 133, wherein said artificial skin comprises living cells obtained from young subjects.

136. (Previously presented) The method of claim 133, wherein said artificial skin comprises living cells obtained from elderly subjects.

137. (Previously presented) The method of claim 133, comprising living cells selected from the group consisting of fibroblasts, keratinocytes, melanocytes, Langerhans' cells originating from the blood, endothelial cells originating from the blood, blood cells, sebocytes, chondrocytes, osteocytes, osteoblasts, and Merkel's cells, said cells being normal, genetically modified or malignant.

138. (Previously presented) The method of claim 137, wherein said blood cells are selected from the group consisting of macrophages and lymphocytes.

139. (Previously presented) A method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin prepared from a composite product as defined in claim 79, wherein said artificial skin comprises living cells obtained from young subjects.

140. (Currently amended) A method of in vitro testing of the efficacy of a potentially active substance comprising monitoring the effect of said potentially active substance on an artificial skin prepared from a composite product as defined in claim 79, wherein said artificial skin comprises living cells obtained from elderly young subjects.